Complete Summary

GUIDELINE TITLE

Long-term complications of antiretroviral therapy.

BIBLIOGRAPHIC SOURCE(S)

New York State Department of Health. Long-term complications of antiretroviral therapy. New York (NY): New York State Department of Health; 2004. 17 p. [39 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

- Human immunodeficiency virus (HIV) infection
- Long-term complications of antiretroviral therapy including:
  - Metabolic complications, such as insulin resistance, impaired glucose tolerance, and diabetes; dyslipidemia; body fat changes; lactic acidosis
  - Musculoskeletal complications such as osteopenia/osteoporosis; HIV-associated avascular necrosis; myopathy/myositis

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Risk Assessment

Screening
Treatment

CLINICAL SPECIALTY

Allergy and Immunology
Endocrinology
Family Practice
Infectious Diseases
Internal Medicine
Orthopedic Surgery

INTENDED USERS

Advanced Practice Nurses
Health Care Providers
Physician Assistants
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

To develop guidelines for diagnostic assessment and management of long-term complications of antiretroviral therapy

TARGET POPULATION

Human immunodeficiency virus (HIV)-infected patients with long-term complications of antiretroviral therapy

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Assessment/Screening

Metabolic Complications

1. Fasting blood glucose; 2-hour glucose tolerance test; screening for diabetes
2. Fasting lipid profile; non-fasting total cholesterol and high-density lipoprotein (HDL)
3. Depression screening; assessment for gynecomastia in men receiving highly active antiretroviral (HAART) therapy
4. Arterial or venous lactate, serum bicarbonate, arterial blood gas

Musculoskeletal Complications

1. Bone mineral density (DEXA scan); screening for other known medical causes
2. Radiographic evaluation of joint and contralateral joint
3. Serum creatinine phosphokinase (CPK) level

Management/Treatment

Metabolic Complications

Insulin Resistance, Impaired Glucose Tolerance, and Diabetes

1. Alternatives to a protease inhibitor-based antiretroviral regimen or an atazanavir-based regimen
2. Weight loss for overweight patients
3. Referral to an endocrinologist
4. Metformin and thiazolidinediones
5. Discussing risks and benefits of treatment

Dyslipidemia

1. Lifestyle modifications, such as exercise, weight loss, nutrition therapy, smoking cessation, drug addiction treatment
2. Statins (pravastatin, atorvastatin, rosuvastatin), fibrates (gemfibrozil and fenofibrate), nicotinic acid, bile sequestrants (colesevelam, ezetimibe)

Body Fat Changes

1. Patient education
2. Good nutrition and regular exercise
3. Psychological support
4. Sculptra (long-term safety unknown), metformin

Lactic Acidosis

1. Temporary discontinuation of the entire ARV regimen
2. Consultation with HIV Specialist to determine an appropriate ARV regimen

Musculoskeletal Complications

Osteopenia and Osteoporosis

1. Counseling patients about safe home environment
2. Standard treatment including bisphosphonates, calcium, calcitonin, raloxifene, and/or estrogens

HIV-Associated Avascular Necrosis

1. Analgesic therapy
2. Referral to orthopedic surgeon
3. Surgery

MAJOR OUTCOMES CONSIDERED

- Risk for and incidence of complications of antiretroviral therapy
- Efficacy of management/treatment recommendations at reducing morbidity and mortality associated with long-term complications of antiretroviral therapy
- Side effects of treatment

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus (Committee)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The Human Immunodeficiency Virus (HIV) Guidelines Program works directly with committees composed of HIV Specialists to develop clinical practice guidelines. These specialists represent different disciplines associated with HIV care, including infectious diseases, family medicine, obstetrics and gynecology, among others. Generally, committees meet in person 3 to 4 times per year, and otherwise conduct business through monthly conference calls.

Committees meet to determine priorities of content, review literature, and weigh evidence for a given topic. These discussions are followed by careful deliberation

to craft recommendations that can guide HIV primary care practitioners in the delivery of HIV care. Decision making occurs by consensus. When sufficient evidence is unavailable to support a specific recommendation that addresses an important component of HIV care, the group relies on their collective best practice experience to develop the final statement. The text is then drafted by one member, reviewed and modified by the committee, edited by medical writers, and then submitted for peer review.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Clinicians should discuss with patients the potential side effects associated with highly active antiretroviral therapy (HAART) and human immunodeficiency virus (HIV) infection.

The table below outlines the assessments that should occur to identify and monitor specific adverse effects as a result of antiretroviral (ARV) therapy.

Table 1
Diagnostic Assessment and Monitoring for ARV Side Effects

	Adverse Event	Test, Screen, or Referral	Indications
Metabolic Complications	Glucose metabolism	Fasting blood glucose	Before initiating HAART, 3 to 6 months after initiation, then annually
		2-hour glucose tolerance test	For patients with borderline fasting glucose values
		Screening	All adults over age

Table 1 Diagnostic Assessment and Monitoring for ARV Side Effects			
	Adverse Event	Test, Screen, or Referral	Indications
		test for diabetes	18
	Dyslipidemia	Fasting lipid profile	Before initiating HAART, 3 to 6 months after initiation, then at least annually
		Non-fasting total cholesterol and high-density lipoprotein (HDL)	Only in cases when fasting lipid profile cannot be obtained
	Body fat changes	Depression screen	At every visit in patients with body fat changes
Metabolic Complications	Lactic acidosis	Arterial or venous lactate, serum bicarbonate, arterial blood gas	To diagnose lactic acidosis syndrome in patients with symptoms
		Repeat lactate and serum bicarbonate levels	In patients with decrease in serum bicarbonate
		Repeat lactate level and arterial blood gas	In patients with mildly elevated lactate levels
		Serum lactate levels	In patients with lactic acidosis syndrome: every 4 weeks for at least 3 months
Musculoskeletal Complications	Osteopenia/osteoporosis	Bone mineral density (DEXA scan)	To make a diagnosis in patients suspected of having osteoporosis
		Screen for other known medical causes	In patients with diagnosed osteopenia/osteoporosis
	HIV-associated	Radiographic	Patients who present

Table 1 Diagnostic Assessment and Monitoring for ARV Side Effects			
	Adverse Event	Test, Screen, or Referral	Indications
	avascular necrosis	evaluation of joint and contralateral joint	with moderate to severe bone/joint pain
		Referral to orthopedic surgeon for consultation	For patients with avascular necrosis
	Myopathy/myositis	Serum creatinine phosphokinase (CPK)	For symptomatic patients (muscle pain or weakness)
Hepatobiliary Complications*	Hepatotoxicity	Serum liver enzymes	At baseline and every 3 to 4 months thereafter for all ARV regimens For patients receiving nevirapine** therapy at baseline and every 2 weeks for the first 12 weeks Whenever clinically indicated
	Pancreatitis	Serum amylase and lipase levels	When patients receiving ARV agents that are associated with pancreatitis present with signs or symptoms suggestive of pancreatitis
Renal Complications*	Renal toxicity	Serum creatinine level	At baseline and every 3 to 4 months thereafter
Hematologic Complications*	Bone marrow suppression	Complete blood count	Before initiation of ARV therapy and every 3 to 4 months thereafter (monthly for patients at high risk for bone marrow toxicity)

*See the New York State Department of Health AIDS Institute Clinical Guideline Antiretroviral Therapy, Section III: "Monitoring of Patients Receiving ARV Therapy" for recommendations on routine management of ARV therapy complications.

**Note from the National Guideline Clearinghouse: On January 19, 2005, the U.S. Food and Drug Administration (FDA) issued a public health advisory about recent safety-related changes to the nevirapine (Viramune®) label and about appropriate use of HIV triple combination therapy containing nevirapine. The Indications and Usage section now recommends against starting nevirapine treatment in women with CD4+cell counts greater than 250 cells/mm3 unless benefits clearly outweigh risks. This recommendation is based on a higher observed risk of serious liver toxicity in patients with higher CD4 cell counts prior to initiation of therapy. See the FDA Web site for more information.

Metabolic Complications Associated with Antiretroviral Therapy

Disorders of Glucose Metabolism (Insulin Resistance, Impaired Glucose Tolerance, and Diabetes)

Clinicians should assess fasting blood glucose (diabetes mellitus is defined as a fasting blood glucose ≥126 mg/dL) before initiating HAART, 3 to 6 months after initiation, and annually thereafter, especially if a protease (PI) inhibitor is used.

For patients with borderline fasting glucose values, clinicians should administer 75 g of oral glucose (2-hr glucose tolerance test) to distinguish between impaired glucose tolerance (glucose level ≥140 mg/dL 2 hours after oral glucose) and diabetes (glucose level ≥200 mg/dL after oral glucose).

Clinicians should use alternatives to a protease inhibitor-based HAART regimen, or use an atazanavir-based regimen, in patients with pre-existing glucose intolerance or diabetes.

Clinicians should recommend weight loss for overweight patients with glucose intolerance or diabetes.

Refer to Table 2 in the original guideline document for the risk factors for diabetes mellitus in HIV-infected patients and Table 3 for the criteria for the diagnosis of diabetes mellitus.

Recommendations for Patients with Diabetes:

- Patient education regarding symptoms of hyperglycemia and hypoglycemia
- Maintain HbA1c <7%
- Measure random, spot urine albumin:creatinine ratio annually
- Maintain triglyceride levels <150 mg/dL
- Maintain low-density lipoprotein cholesterol <100 mg/dL
- Maintain blood pressure <130/80 mmHg
- Annual retinal examination by an experienced ophthalmologist
- Annual oral health examination
- Lifestyle modification (smoking and alcohol cessation, increased exercise, weight loss, and expert nutritional counseling)
- Annual foot examination with referral to a foot specialist when indicated (orthopedic surgeon, podiatrist, vascular surgeon, or rehabilitation)
- Aspirin therapy for patients with evidence of macrovascular disease, a family history of coronary heart disease, or a history of cigarette smoking, and as secondary prevention after vascular events

Special Management Considerations for Diabetes in HIV-Infected Patients

Clinicians should refer diabetic patients who are not responsive to medical intervention or who have symptoms and signs of worsening diabetes to an endocrinologist.

Primary care clinicians who lack experience in treating diabetic patients should refer patients for evaluation by an endocrinologist.

The preferred treatment for disorders of glucose metabolism in HIV-infected patients is insulin sensitizing agents (metformin and thiazolidinediones). Because these agents may complicate liver function, clinicians should discuss the risks and benefits with patients.

Metformin should not be used in patients with renal failure or a history of lactic acidosis. Thiazolidinediones should be used with caution in patients with pre-existing liver disease.

Clinicians should consider changing the HAART regimen to a PI-sparing regimen if the diabetes cannot be treated with standard therapies or if a change is indicated as a result of virologic failure.

Lipid Abnormalities (Dyslipidemia)

Clinicians should monitor patients receiving ARV therapy for dyslipidemia by obtaining a fasting lipid profile before initiation of ARV therapy, within 3 months after starting or changing ARV treatment, and at least annually thereafter. More frequent monitoring may be indicated by the presence of persistent lipid elevation, cardiovascular risk factors, or cardiovascular symptoms.

Clinicians should recommend lifestyle modifications, such as increased exercise, weight loss, nutrition therapy, smoking cessation, and drug addiction treatment.

Pharmacologic treatment of dyslipidemia should be guided by currently available clinical guidelines.

When a statin is indicated, clinicians should avoid using simvastatin and lovastatin in patients who are concurrently receiving PIs.

Refer to Table 5 in the original guideline document for major risk factors that modify low-density lipoprotein (LDL) goals.

Low-Density lipoprotein (LDL) and Non-High-Density Lipoprotein (HDL) Cholesterol Goals and Thresholds for Therapeutic Lifestyle Changes and Drug Therapy in Different Risk Categories				
Risk Category	LDL Goal (mg/dL)	LDL Level at Which to Initiate Lifestyle Changes (mg/dL)	LDL Level at Which to Consider Drug Therapy (mg/dL)	Non-HDL Goal (mg/dL)*
Coronary heart disease (CHD) or CHD risk	<100	≥100	≥130 (100 to 129: drug	<130

Low-Density lipoprotein (LDL) and Non-High-Density Lipoprotein (HDL) Cholesterol Goals and Thresholds for Therapeutic Lifestyle Changes and Drug Therapy in Different Risk Categories				
Risk Category	LDL Goal (mg/dL)	LDL Level at Which to Initiate Lifestyle Changes (mg/dL)	LDL Level at Which to Consider Drug Therapy (mg/dL)	Non-HDL Goal (mg/dL)*
equivalents: diabetes mellitus, atherosclerotic disease (coronary artery disease [CAD] or stroke), or multiple risk factors (10-year risk >20%)			optional)**	
2+ risk factors: HDL <40, strong family history, age >45 years, and smoking (10-year risk >20%)	<130	≥130	10-year risk: 10 to 20%: ≥130 10-year risk <10%: ≥160	<160
0-1 risk factor***	<160	≥160	≥190 (160 to 189: LDL-lowering drug optional)	<190

Modified from the Executive Summary of the Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). Available at: www.nhlbi.nih.gov/guidelines/cholesterol/

* Non-HDL cholesterol = (total cholesterol - HDL). When LDL cannot be measured because the triglyceride level is >200 mg/dL, non-HDL cholesterol may be used as a secondary goal. The non-HDL cholesterol goal is 30 mg/dL higher than the LDL cholesterol goal.

** Some authorities recommend use of LDL-lowering drugs in this category if an LDL cholesterol level of <100 mg/dL cannot be achieved by therapeutic lifestyle changes (dietary and exercise intervention). Others prefer use of drugs that primarily modify triglycerides and HDL (e.g., nicotine acid or fibrate). Clinical judgment also may suggest deferring drug therapy in this subcategory.

*** Almost all people with 0 or 1 risk factors have a 10-year risk <10%; thus, 10-year risk assessment in people with 0 or 1 risk factors is not necessary.

Choice of Drug Therapy for Dyslipidemia in HIV-Infected Individuals Receiving HAART			
Lipid Abnormality	First Choice	Second Choice (or if additional treatment is needed)	Comments
Isolated high LDL	Statin*	Fibrate	Start with low doses of statins, and titrate upward. Patients

Choice of Drug Therapy for Dyslipidemia in HIV-Infected Individuals Receiving HAART			
Lipid Abnormality	First Choice	Second Choice (or if additional treatment is needed)	Comments
			receiving PIs may be at increased risk of statin-induced myopathy.
Combined hyperlipidemia (high cholesterol and high triglycerides)	Fibrate or statin*	- If starting with fibrate, add statin* - If starting with statin*, add fibrate	Combining statin and a fibrate may increase risk for myopathy.
Isolated hypertriglyceridemia	Fibrate	Statin*	Combining statin and a fibrate may increase risk for myopathy.

Adapted from the Preliminary guidelines for the evaluation and management of dyslipidemia in adults infected with human immunodeficiency virus and receiving antiretroviral therapy: Recommendations of the Adult AIDS Clinical Trial Group Cardiovascular Disease Focus Group.

*Statins should be dosed at bedtime. Simvastatin and lovastatin should be avoided in patients receiving PIs.

Body Fat Changes

Clinicians should educate patients receiving ARV therapy about signs and symptoms of body fat changes.

Clinicians should recommend good nutrition and regular exercise to their patients.

Clinicians should screen patients who develop changes in body fat for depression at every visit and should provide psychological support for patients who experience mood disorders secondary to body habitus changes.

Clinicians should include an assessment for gynecomastia in the physical examination of men who are receiving HAART.

Treatment of body fat changes in the absence of metabolic complications is not routinely recommended.

Lactic Acidosis

Clinicians should monitor serum lactate levels every 4 weeks for at least 3 months in patients with lactic acidosis syndrome. Routine monitoring of serum lactate levels is not indicated in asymptomatic patients.

For patients who develop symptoms of lactic acidosis syndrome and have a confirmed, elevated arterial or venous lactate level (>5 mmol/L) with normal to decreased serum bicarbonate (<20 mmol/L), clinicians should temporarily discontinue the entire ARV regimen while a diagnostic evaluation is conducted. This evaluation should include arterial blood gas determination, serum amylase and lipase levels, and serum liver enzyme levels.

Patients who are asymptomatic and experience an unexplained decrease in serum bicarbonate level (<20 mmol/L) should be promptly re-evaluated with a venous or arterial lactate level, and re-determination of the serum bicarbonate level.

If the patient has a mildly elevated lactate level (2.1 to 5.0 mmol/L), the clinician should obtain a repeat lactate level and an arterial blood gas and should re-assess the patient for the presence of symptoms associated with lactic acidosis.

If the lactate level is persistently elevated (>10 mmol/L), the arterial pH is abnormal, or the patient has become symptomatic, the clinician should discontinue ARV therapy until these conditions are resolved.

When ARV therapy is restarted, the clinician should consult with an HIV Specialist to determine an appropriate regimen.

Musculoskeletal Complications Associated with ARV Therapy

Osteopenia/Osteoporosis

Routine screening of asymptomatic HIV-infected patients without traditional risk factors for osteopenia or osteoporosis is not recommended.

Clinicians should evaluate patients who are suspected of having osteoporosis with a bone mineral density test (DEXA scan).

When a patient presents with an unexpected or unusual fracture, the clinician should promptly evaluate the patient for osteopenia/osteoporosis.

Clinicians should counsel patients at risk for osteoporosis about structuring a safe home environment.

Clinicians should initiate standard treatment for HIV-infected patients with osteopenia and/or osteoporosis.

HIV-Associated Avascular Necrosis

Clinicians should radiographically evaluate patients who present with moderate to severe bone/joint pain. The contralateral joint should also be assessed.

Clinicians should prescribe analgesic therapy for patients with avascular necrosis.

Clinicians should refer patients with avascular necrosis to an orthopedic surgeon for consultation and to physical and/or occupational therapists for ongoing therapy. Surgical treatment is the only effective therapy.

Myopathy/Myositis

Measurement of serum creatinine phosphokinase (CPK) is not routinely indicated.

HIV infection may be associated with asymptomatic elevation of CPK. In this setting, serial monitoring is not indicated.

If the patient becomes symptomatic (e.g., muscle pain or weakness), CPK should be measured.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not stated.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

General Benefits

Appropriate diagnostic assessment and management of long-term complications of antiretroviral therapy in human immunodeficiency virus (HIV)-infected patients

Specific Benefits of Treatment

- Metformin reduces hepatic glucose production and improves peripheral glucose uptake and utilization. It also has been associated with reduction in insulin levels, body mass index, body fat content, and diastolic blood pressure in small numbers of HIV-infected patients with insulin resistance. Metformin also modestly reduces serum triglyceride and total cholesterol levels and low-density lipoprotein cholesterol (LDL-C).
- Thiazolidinediones effectively lower HbA1c levels and serum triglyceride levels and increase high-density lipoprotein (HDL) levels.

POTENTIAL HARMS

Adverse Effects of Medication

- Lactic acidosis is a rare, yet potentially fatal, side effect associated with metformin. The development of metformin-related lactic acidosis is increased in patients with renal insufficiency, heart failure, dehydration, or sepsis. Contrast materials may temporarily compromise renal function; therefore,

metformin should be temporarily discontinued before, and withheld for at least 48 hours after, intravascular contrast administration.
- Thiazolidinediones have the potential to cause hepatitis. Patients receiving thiazolidinediones may experience weight gain compared to patients receiving metformin.
- Combination therapy with a statin and fibrate should be used with extreme caution because of overlapping toxicity (rhabdomyolysis) profiles.
- Nicotinic acid may cause hepatotoxicity and elevated serum glucose levels.
- Bile acid sequestrants (e.g., colesevelam or ezetimibe) may interfere with absorption of oral medications.

CONTRAINDICATIONS

CONTRAINDICATIONS

- Metformin is contraindicated in patients with serum creatinine levels above the upper limit of normal (ULN) for their age or lactic acidemia. Metformin is relatively contraindicated in the presence of hepatitis and active liver disease.
- Lovastatin and Simvastatin are contraindicated during concurrent protease inhibitor therapy.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Following the development and dissemination of guidelines, the next crucial steps are adoption and implementation. Once practitioners become familiar with the content of guidelines, they can then consider how to change the ways in which they take care of their patients. This may involve changing systems that are part of the office or clinic in which they practice. Changes may be implemented rapidly, especially when clear outcomes have been demonstrated to result from the new practice such as prescribing new medication regimens. In other cases, such as diagnostic screening or oral health delivery, however, barriers emerge which prevent effective implementation. Strategies to promote implementation, such as through quality of care monitoring or dissemination of best practices, are listed and illustrated in the companion document to the original guideline (HIV clinical practice guidelines, New York State Department of Health; 2003), which portrays New York's HIV Guidelines Program. The general implementation strategy is outlined below.

- Statement of purpose and goal to encourage adoption and implementation of guidelines into clinical practice by target audience
- Define target audience (providers, consumers, support service providers).
    - Are there groups within this audience that need to be identified and approached with different strategies (e.g., HIV Specialists, family practitioners, minority providers, professional groups, rural-based providers)?
- Define implementation methods.
    - What are the best methods to reach these specific groups (e.g., performance measurement consumer materials, media, conferences)?
- Determine appropriate implementation processes

        - What steps need to be taken to make these activities happen?
        - What necessary processes are internal to the organization (e.g., coordination with colleagues, monitoring of activities)?
        - What necessary processes are external to the organization (e.g., meetings with external groups, conferences)?
        - Are there opinion leaders that can be identified from the target audience that can champion the topic and influence opinion?
    - Monitor progress.
        - What is the flow of activities associated with the implementation process and which can be tracked to monitor the process?
    - Evaluate.
        - Did the processes and strategies work? Were the guidelines implemented?
        - What could be improved in future endeavors?

IMPLEMENTATION TOOLS

Quick Reference Guides/Physician Guides

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

New York State Department of Health. Long-term complications of antiretroviral therapy. New York (NY): New York State Department of Health; 2004. 17 p. [39 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2004

GUIDELINE DEVELOPER(S)

New York State Department of Health - State/Local Government Agency [U.S.]

SOURCE(S) OF FUNDING

New York State Department of Health

GUIDELINE COMMITTEE

Medical Care Criteria Committee

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the New York State Department of Health AIDS Institute Web site.

Print copies: Available from Office of the Medical Director, AIDS Institute, New York State Department of Health, 5 Penn Plaza, New York, NY 10001; Telephone: (212) 268-6108

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Long-term complications of antiretroviral therapy. Tables and recommendations. New York (NY): New York State Department of Health; 2004 Jun. 10 p. Electronic copies: Available from the New York State Department of Health AIDS Institute Web site.
- HIV clinical practice guidelines. New York (NY): New York State Department of Health; 2003. 36 p. Electronic copies: Available from the New York State Department of Health AIDS Institute Web site.

Print copies: Available from Office of the Medical Director, AIDS Institute, New York State Department of Health, 5 Penn Plaza, New York, NY 10001; Telephone: (212) 268-6108

PATIENT RESOURCES

None available

NGC STATUS

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